

Version with Markings to Show Changes Made

In the Claims:

Claims 1, 8, 9, 12, 13 and 15 have been amended as follows:

1. (Amended) A motor comprising:
a rotary shaft; and
a bearing for radially supporting the rotary shaft, wherein the bearing includes:
a cylindrical rotary member connected to the rotary shaft; [and]
a cylindrical fixed surface surrounding the rotary member, wherein the fixed surface is spaced from the rotary member by a predetermined distance, and wherein the material of the rotary member has a coefficient of thermal expansion that is smaller than that of the material of the fixed surface; and
armature coils arranged about a peripheral surface of the fixed surface to rotate the rotary shaft.
8. (Amended) The motor according to claim 1, further comprising a case for accommodating the bearing, the rotary member, and the fixed surface, wherein the case has a slit for cooling the bearing, the rotary member, and the fixed surface.
9. (Amended) A motor comprising:
a rotary shaft; and
a bearing for radially supporting the rotary shaft, wherein the bearing includes:
a cylindrical rotary member connected to the rotary shaft; [and]

a cylindrical fixed surface surrounding the rotary member, wherein the fixed surface is spaced from the rotary member by a predetermined distance, and wherein the rotary member is made of a material having a coefficient of thermal expansion that is $5 \times 10^{-6}/^{\circ}\text{C}$ or less; and

armature coils arranged about a peripheral surface of the fixed surface to rotate the rotary shaft.

12. (Amended) The motor according to claim 9, further comprising a case for accommodating the bearing, the rotary member, and the fixed surface, wherein the case has a slit for cooling the bearing, the rotary member, and the fixed surface.

13. (Amended) A turbo-molecular pump comprising:

a housing;

a stator vane attached to the housing;

a rotor vane rotated relative to the stator vane; and

a motor for driving the rotor vane, wherein the motor includes:

a rotary shaft; and

a bearing for radially supporting the rotary shaft, wherein the bearing includes:

a cylindrical rotary member connected to the rotary shaft; [and]

a cylindrical fixed surface surrounding the rotary member, wherein the fixed surface is spaced from the rotary member by a predetermined distance, and wherein the material of the rotary member has a coefficient of thermal expansion that is smaller than that of the material of the fixed surface; and

armature coils arranged about a peripheral surface of the fixed surface to
rotate the rotary shaft.

15. (Amended) A turbo-molecular pump comprising:
 - a housing;
 - a stator vane attached to the housing;
 - a rotor vane rotated relative to the stator vane; and
 - a motor for driving the rotor vane, wherein the motor includes:
 - a rotary shaft; and
 - a bearing for radially supporting the rotary shaft, wherein the bearing includes:
 - a cylindrical rotary member connected to the rotary shaft; [and]
 - a cylindrical fixed surface surrounding the rotary member, wherein the fixed surface is spaced from the rotary member by a predetermined distance, and wherein the rotary member is made of a material having a coefficient of thermal expansion that is $5 \times 10^{-6}/^{\circ}\text{C}$ or less; and
armature coils arranged about a peripheral surface of the fixed surface to
rotate the rotary shaft.